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**THE FOLLOWING ARE THE ENGLISH TRANSLATION  
OF ANNEXES TO THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT (ARTICLE 34):**

Amended Sheets (Pages 16-17)

**As enclosed to IPRP**

We claim:

- 5 1. A process for carrying out exothermic chemical equilibrium reactions in a  
fluidized-bed reactor, wherein there is a temperature distribution along the  
flow direction in the fluidized bed of the fluidized-bed reactor and the tem-  
perature difference between the lowest temperature and the highest tem-  
perature is at least 10 K and wherein the temperature within the fluidized  
10 bed decreases from an absolute temperature maximum along the flow di-  
rection to the surface of the fluidized bed.
- 15 2. The process according to claim 1, wherein the temperature within the fluid-  
ized bed decreases from an absolute temperature maximum in the fluid-  
ized bed along the flow direction to the surface of the fluidized bed and to  
the gas distributor.
- 20 3. The process according to either claim 1 or 2, wherein the distance be-  
tween the absolute temperature maximum and the gas distributor is  
smaller than the distance between the absolute temperature maximum and  
the surface of the fluidized bed.
- 25 4. The process according to any of claims 1 to 3, wherein the temperature of  
the reaction gases fed to the fluidized-bed reactor is below the lowest tem-  
perature occurring in the fluidized bed.
- 30 5. The process according to any of claims 1 to 4, wherein the temperature  
distribution is produced by heat transfer to at least one heat exchanger  
within the fluidized bed.
6. The process according to any of claims 1 to 5, wherein the chemical reac-  
tion is the preparation of chlorine from hydrogen chloride and oxygen.
- 35 7. The process according to any of claims 1 to 6, wherein the fluidized bed  
comprises a catalyst which comprises a metal component on an oxidic  
support.
8. The process according to claim 7, wherein the catalyst comprises a ruthe-  
nium compound.

9. A fluidized-bed reactor for carrying out the process according to any of claims 1 to 8 in a fluidized bed (5) into which reaction gases are fed via a gas distributor (4), wherein at least one heat exchanger (12, 28) is located in the fluidized bed (5) to control the temperature distribution within the fluidized bed (5) and wherein the distance between the gas distributor (4) and the nearest heat exchanger (12) is at least 50 cm.